SAND2022-9905D

The Center for Cyber Defenders

Expanding computer security knowledge

Magic Beans: Raspberry Pi Set Up

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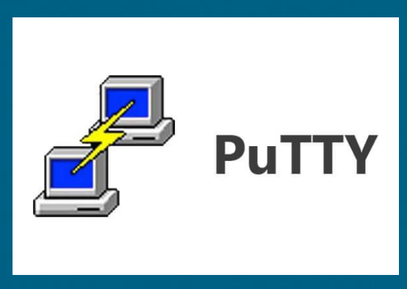
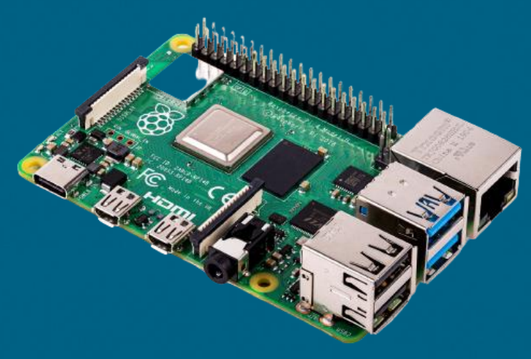
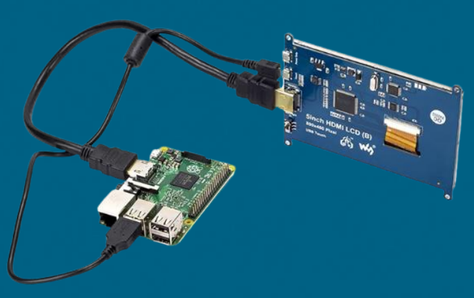
- **Problem Statement:**
- Implement and configure an embedded system on a Raspberry Pi 4 device to fulfill a crucial mission need. This system emulates certain legacy printer capabilities in a secure manner.
- **Objectives and Approach:**
- During initial testing, PuTTY was used to establish a serial connection utilized by the Python code for printer functionality
- The Python code was copied onto a microSD chip before being inserted into the Raspberry Pi.
- A touchscreen interface connects to the Raspberry Pi via a micro HDMI cable and both devices are plugged into their respective power supplies.
- After the initial set up process was completed and the Raspberry Pi OS was booted up, the python code was transferred from a microSD chip to the Raspberry Pi.

- **Results:**
- Currently the Raspberry Pi is going through the testing phase to ensure that the embedded system is in working order and connects properly with the output device.
- Once the testing process is completed the Raspberry Pi will have a functioning legacy system for users to utilize.





- **Impact and Benefits:**
- Provides an alternative method to complete a crucial mission need while also immortalizing a legacy system for continued use.
- Increases mobility and simplifies the process for accessing the embedded system.



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